

CLAIMS

1. A lithographic apparatus comprising:
an illumination system to provide a projection beam of radiation;
a support structure to support patterning structure, the patterning structure serving to impart the projection beam with a pattern in its cross-section;
a substrate table for holding a substrate;
a projection system to project the patterned beam onto a target portion of the substrate;
a dust-tight storage container defining a storage space to contain at least one patterning structure, wherein the storage container is arranged to be coupled with a transfer container to exchange patterning structure through a closeable passage between the transfer container and the storage container; and
a vacuum chamber to receive patterning means via or from the storage container.
2. A lithographic apparatus according to claim 1,
wherein the transfer container is particle-tight.
3. A lithographic apparatus according to claim 1,
wherein the lithographic apparatus further comprises a vacuum pump to evacuate gas from the vacuum chamber.
4. A lithographic apparatus according to claim 1,
wherein the lithographic apparatus further comprises a further vacuum chamber in fluid communication with the vacuum chamber via a passage which is vacuum closeable and a transfer mechanism to transfer patterning structure through the passage.
5. A lithographic apparatus according to claim 1,
wherein the storage container is constructed and arranged to be coupled with the transfer container such that a part of a first shutter of the storage container and a part of a

second shutter of the transfer container are coupled in order to be moved simultaneously into said storage space.

6. A lithographic apparatus according to claim 5,
wherein at least one of the first and second shutters is arranged to support the patterning structure.
7. A lithographic apparatus according to claim 5,
wherein in use, while moving the patterning structure into the storage space, respective outer parts of the respective shutters move outside the storage space and respective inner parts of the respective shutters move into the storage space together with the patterning structure.
8. A lithographic apparatus according to claim 1,
wherein the lithographic apparatus further comprises a holder to hold the patterning structure when moved inside the storage space.
9. A lithographic apparatus according to claim 8,
wherein the lithographic apparatus further comprises slideable walls forming walls of the vacuum chamber.
10. A method of manufacturing a device comprising:
connecting a substantially dust-tight, non-vacuum-compatible transfer container in a dust-tight transfer position against an outer portion of a lithographic apparatus;
transferring patterning structure from the transfer container into a substantially dust-tight non-vacuum storage space of the lithographic apparatus;
transferring the patterning structure from the storage space into a vacuum chamber;
illuminating the transferred patterned structure with a beam of radiation to form a patterned beam of radiation; and
projecting the patterned beam of radiation onto a target portion of a substrate.

11. A device manufacturing method according to claim 10, further comprising:
pumping the vacuum chamber to produce a substantially vacuum ambience;
transferring the patterning structure from the vacuum chamber into a further vacuum chamber in a substantially vacuum state, wherein the patterning structure is placed into an illumination position in the further vacuum chamber for forming the patterned beam.